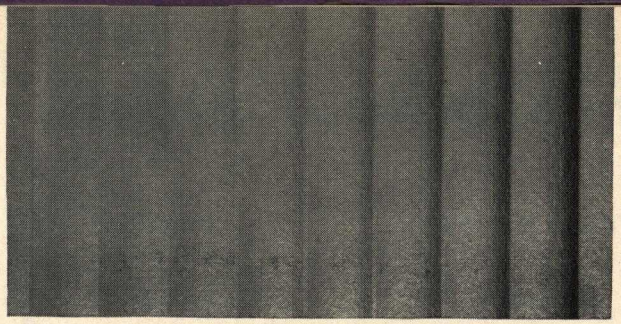
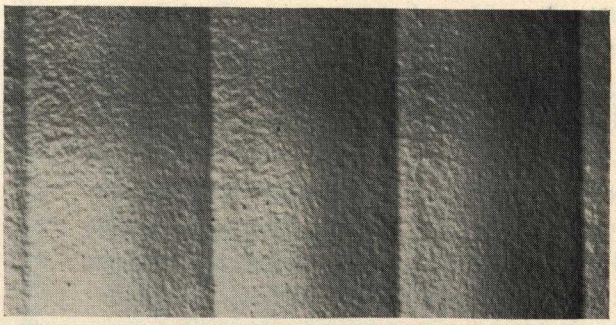
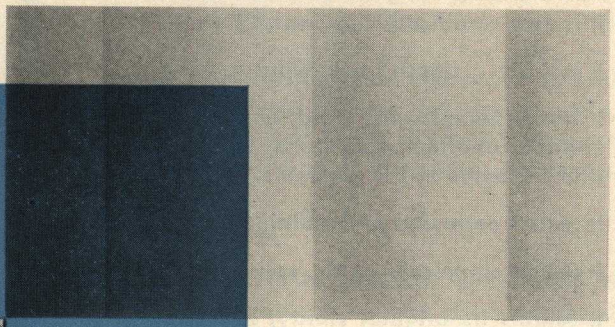
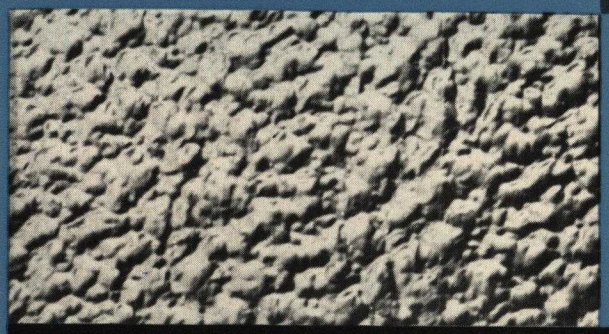
catalog 60-G

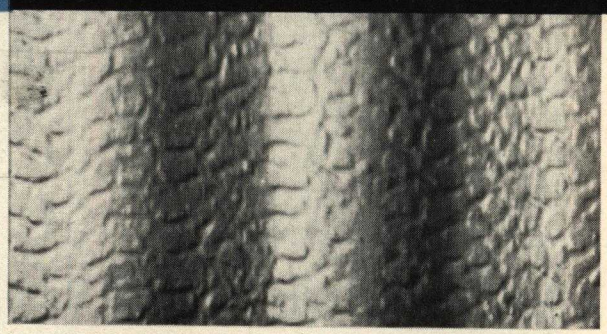








MISSISSIPPI GLASS



for
industrial
commercial
school
residential
use

mississippi glass

advantages

time tested

The traditionally preferred material for vertical sidewall and skylight glazing, glass and glass alone, affords the proven performance needed for better daylighting at ultimately the lowest cost. Glass posseses the chemical stability, permanence of finish, color, shape, surface hardness, non-inflammability and other desirable characteristics available in no other product. Glass is the proven material that has withstood the tortuous test of time. There is no substitute for glass.

- **It is non-combustible . . . won't burn.**
- **It is rigid . . . doesn't sag, warp or bend.**
- **It has a permanently hard, impervious surface, unaffected by time, abrasion and exposure to the elements.**
- **It resists corrosion and staining.**
- **It resists chemicals, acids, solvents, etc.**
- **It retains its original clarity, brilliance and lustrous beauty.**
- **It is easily installed, maintained and cleaned by conventional methods.**

As the world's largest manufacturer of rolled, figured and wired glass, Mississippi Glass Company offers an extensive selection of conventional and modern patterns with surface finishes and light transmission characteristics that fulfill the requirements of any design or specification. Brilliancy, strength, true cutting surface and excellence of quality assure maximum possible advantage from controlled illumination characteristics and decorative effects, and combine with moderate cost to make Mississippi Glass the choice of thousands of architects, engineers, builders and decorators.

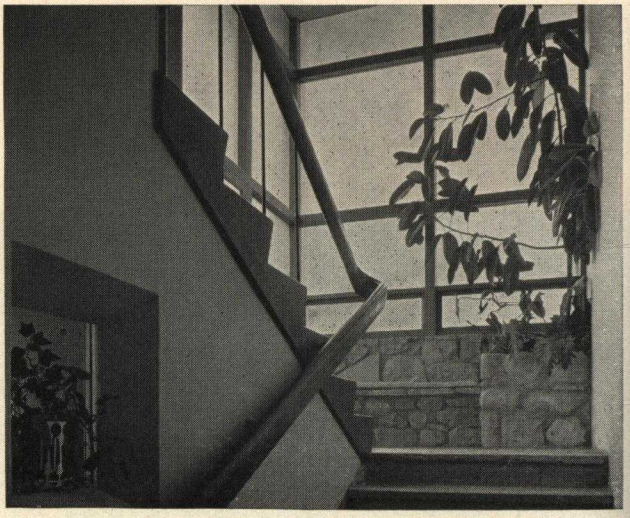
nation wide acceptance

Mississippi Glass is widely known and has been favorably regarded for 86 years. Its primary functions of diffusion, decoration and protection along with a secondary function of heat absorption, result in a variety of types each designed and engineered to accomplish a specific purpose. Its service in industrial, residential, commercial buildings and in schools has become so well established as to be taken for granted.

important functions

LIGHT DIFFUSION AND GLARE REDUCTION

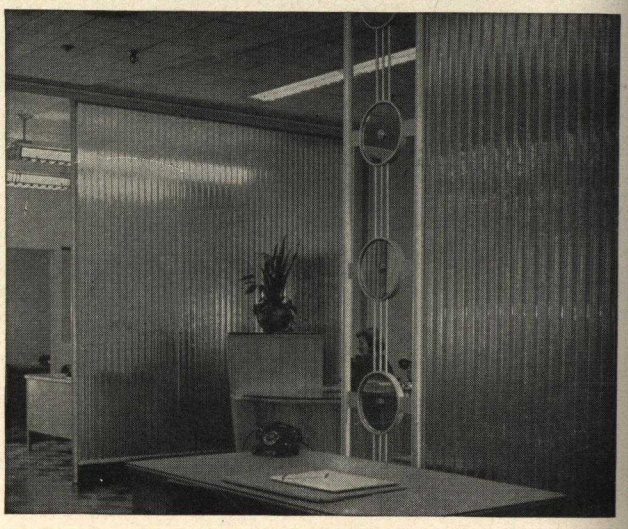
The properties of light diffusion and glare reduction are two of the most useful tools available to an architect, engineer or designer. By these means, rooms can be adequately daylighted far from windows, small skylight areas can cover large floor areas with shadowless daylight, privacy can be secured, light can be controlled.



Light becomes a vibrant, interesting part of the decorating scheme, transforming a utilitarian stair landing into a point of high interest. Burton Schutt, Architect. Reprint from Sunset Magazine.

DECORATION

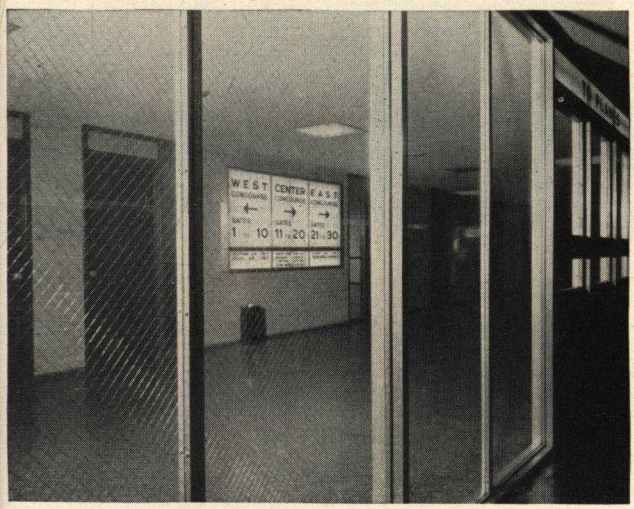
Translucent figured glass by Mississippi affords the architect countless opportunities for creating new and striking effects . . . helps to achieve a feeling of warmth and unity that is as utilitarian as it is beautiful.



Daylighting partitions of Structural Corrugated Glass in modern office.

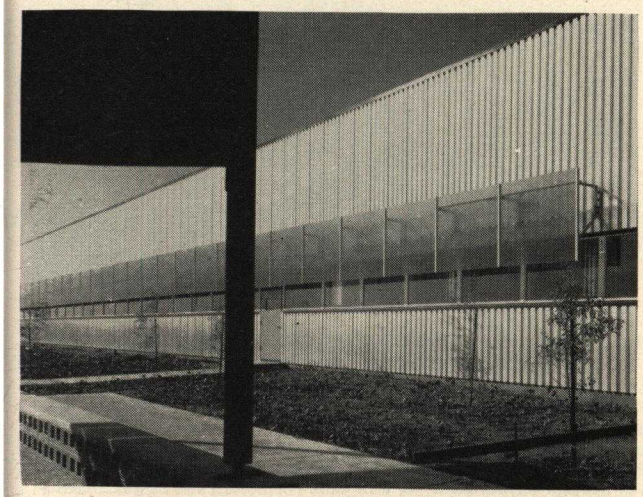
PROTECTION

Wire glass, approved for many years by the National Board of Fire Underwriters as a fire retardant has saved countless millions of dollars of property from conflagration. The advent of diamond shaped, welded Misco netting in wire glass, created by Mississippi, has removed the objection held by many to the "chicken wire" effect of the netting used in wire glass for so many years.



HEAT ABSORPTION

Admitting maximum natural daylight while intercepting solar heat to keep interiors more comfortable is the task successfully performed by Mississippi Coolite Heat Absorbing Glass. The composition and color of this glass change the character of the light... provide an even spread of adequate illumination from which much of the sun's heat has been removed.



types

standard

Mississippi Glass is available in a wide variety of patterns and surface finishes combining interesting texture with modern practicality. All transmit valuable light, yet their obscurity assures varying degrees of privacy based on pattern characteristics and finish selected.

heat absorbing

In the simplest terms, the interception of solar heat by Coolite is the result of several factors. Tests on ¼" Polished Coolite prove that approximately 80% of the solar heat is intercepted by being reflected and absorbed, and that only 20% passes through the glass without interference. The energy that is absorbed raises the temperature of the glass which then theoretically re-radiates heat equally from both the inner and outer surfaces. Actually, however, more than half of this heat is dissipated outside the building because of greater air circulation.

finishes

For maximum glare reduction and striking decorative effects, many patterns may be given varying degrees of obscurity by sand blasting or glare reducing. Sand blasting may be applied to either one or both surfaces, while the glare reducing finish may be applied to either the pattern side or both surfaces of the glass. Our Glare Reducing and Sand Blasting are applied to full face only. Polished finish for clear vision is applied only to Polished Misco and Polished Wire Glass.

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Types Primarily for Decoration	10 to 13
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mississippi glass for schools

advantages

Mississippi Glass Co., through its extensive research activities, has found better ways to remove the harmful qualities of "raw" sunlight that lighting engineers have found to be distracting and harmful in the schoolroom. Uniform, natural, glare-free illumination, made possible with translucent, light diffusing glass by Mississippi, not only assists in preventing dangerous eye fatigue, but it also helps maintain class interest and aids concentration. Classrooms appear more spacious and cheerful when flooded with undistorted, softened, natural daylight.

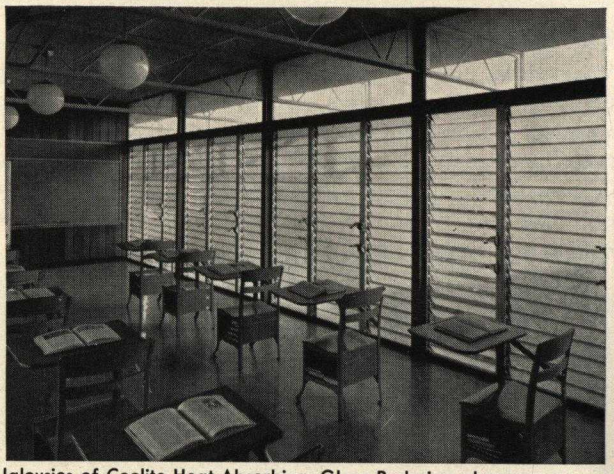
Additional advantages available with Mississippi Glass include the absorption of 50% of the sun's heat when heat absorbing and glare reducing glass is employed and the full protection afforded by wire glass (Approved Fire Retardant No. 32) when glazed in recommended openings. Adequate ventilation is provided since any Mississippi Glass pattern can be easily installed in conventional sash at no additional cost.

Translucent light diffusing glass by Mississippi is available in many patterns and surface finishes that satisfy every requirement. All have been scientifically designed to distribute daylight to utmost advantage. In its experimental school building, located on factory grounds, various Mississippi patterns are subjected to actual classroom conditions in continuing daylighting research. After the large sash sizes that are today so widely favored in modern school architecture have been determined, it is recommended that you consult the local Mississippi Glass supplier for estimates in these sizes. You will be pleased to learn that the pattern of your choice will compare favorably in cost with ordinary glazing. And remember, only Mississippi Glass offers you these advantages in school daylighting:

GLARE REDUCTION
HEAT ABSORPTION
DIFFUSION
LIGHT DIRECTION
MAXIMUM LIGHT
PROTECTION
MINIMUM COST

In new schools or in remodeling projects, take advantage of Mississippi's wide experience. Its technicians are ready to help you with every glazing problem. Specify glass by Mississippi and make better school daylighting a part of your plan. As a result of extensive studies in the important field of schoolroom daylighting, the following Mississippi patterns are particularly recommended:

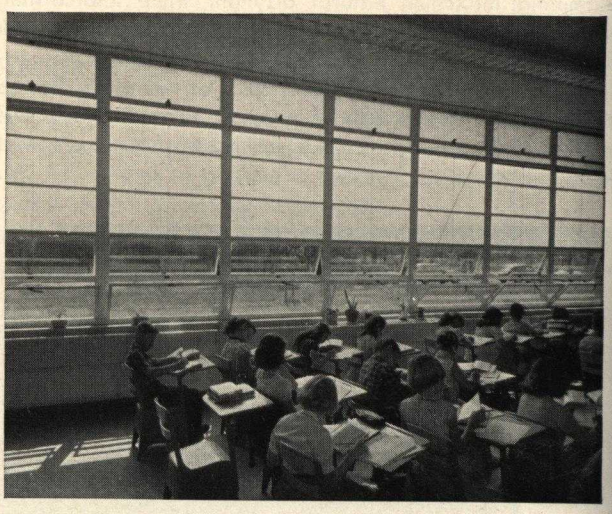
recommended types



Jalousies of Coolite Heat Absorbing, Glare Reducing glass are a new idea in complete classroom comfort. Architect: Curtis & Davis, New Orleans, Louisiana.

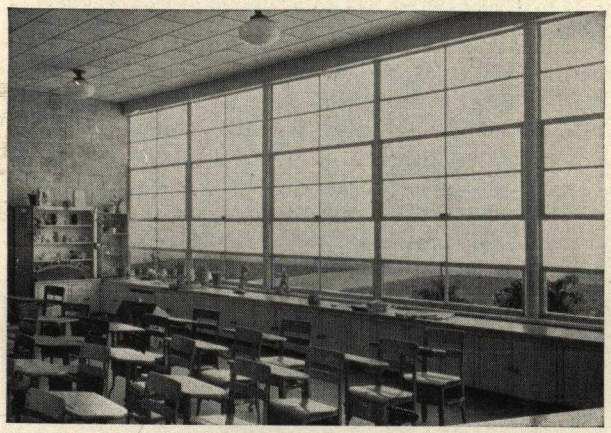
COOLITE
for heat absorption and glare reduction

Coolite heat absorbing and glare reducing glass is of a cool blue color with a slightly greenish cast. Filtering out the unwanted factors in "raw" sunlight, Coolite floods classrooms with softened, delicately tinted natural illumination. Coolite keeps classrooms cooler, more comfortable, for it absorbs nearly 50% of the solar heat. Coolite conditioned light helps protect precious young eyes from fatigue. Students see better, feel better, tend to learn more readily in classrooms glazed with Coolite. For details see pages 7, 18 and 19.



PENTECOR
for maximum light distribution

Pentecor, a handsome ribbed pattern by Mississippi has proved to be a glass widely favored by school architects. Transmitting softened, diffused light deep into interiors, Pentecor makes seeing tasks easier by providing the maximum in light distribution . . . floods entire classrooms with plenty of undistorted, softened, natural light. For details see pages 7 and 9.



HYLITE
for maximum light transmission

With its attractive surface finish Hylite affords maximum light plus diffusion. It is particularly recommended for use in localities which are subject to a high percentage of overcast days or in exposures on which direct sunlight seldom, if ever falls. This all adds up to happier, more attentive pupils and the effect created is conducive to concentration and school interest. See page 7, 8.

POLISHED MISCO WIRE GLASS
for maximum beauty with protection

Polished Misco Wire Glass with its attractive and almost inconspicuous diamond netting is a truly modern glass that combines the utmost in protection with modern beauty. It is therefore ideally suited for school use. The innate strength of this famous wire glass adds structural endurance, reduces danger from breakage. Polished Misco helps retard the effects of dangerous fires... tends to bottle up and control fires before they can spread to tragic proportions. Blending harmoniously with modern school construction, Polished Misco is unexcelled in windows, doors, skylights and partitions. See pages 7, 16 and 17.

transmission data

1/8" Pentecor—For Redirecting Daylight

Direct light transmission 88.5%
Diffuse light transmission 69.5%

Highest illumination of the back of the room may be obtained by the use of 1/8" Pentecor glazed with the ribs running horizontally. This high level of redirected daylight can be obtained without sacrificing a reasonably high illumination at the back of the room during overcast days.

NOTE: For greater diffusion, softening of shadows, and reduction of lighting contrasts within the room 1/8" Pentecor Glare Reducing is recommended.

1/8" Pentecor Glare Reducing
For Softened Daylight

Direct light transmission 68.0%
Diffuse light transmission 60.5%

1/8" Coolite Glare Reducing
For Maximum Comfort and Conditioned Light

Direct light transmission 45%
Diffuse light transmission 28.5%

Maximum protection from excessive solar heat gain and excessive sunlight on Eastern, Western, and Southern exposures may be obtained by the use of Coolite Glare Reducing glass. Not only is window panel brightness reduced, by means of diffusion and light transmission control, to a point of comfort in all but the most extreme circumstances, but also solar heat gain is reduced by one-half. This glass is recommended where excessive sunlight is the prevailing condition.

1/8" Hylite—For Maximum Light

Direct light transmission 90.5%
Diffuse light transmission 84.0%

Maximum light transmission, for schools in localities which are subject to a very high percentage of overcast days, or for exposures on which the sun never falls, may be obtained through the use of 1/8" Hylite glass.

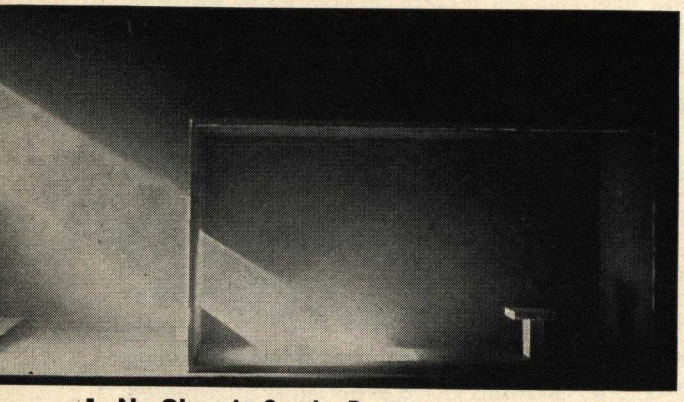
Window panel brightness may reach undesirable extremes when the sun is within the angle of view, and will vary as the sun falls within or leaves the angle of view. No static translucent medium, having a light transmission sufficient to admit a practical amount of usable daylight, can serve as protection against the multi-million foot lamberts of brightness in the sun without some supplementary brightness control. Protection against the brightness of the sun on one hand, and transmission of maximum daylight for overcast conditions on the other, constitutes too wide a range to be covered by a fixed, non-elastic medium. Glare within the room can be eliminated by the use of light diffusing glass, but glare of the window panel itself will require additional control. Therefore, for East, South, or West elevations, we recommend that either the seating arrangement should be such that the sun itself is excluded from the field of view (face students toward the North in all classrooms), or some means of supplementary brightness control, such as adjustable blinds, be provided.

light distribution properties

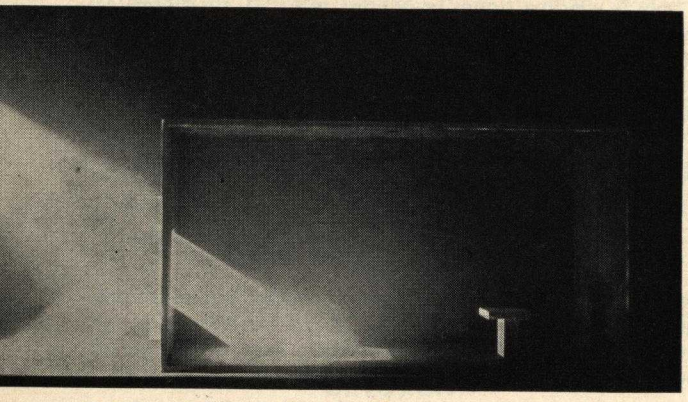
In good daylighting practice, the problem is to provide enough light at working levels distant from the window, while avoiding a high concentration of light next to the window. To accomplish this uniformity of lighting, some diffusion must be employed to throw a portion of the available light directly to the far side of the room. This, at the same time, serves to reduce the objectionable brightness near the windows. For this purpose diffusing glass by Mississippi is ideally suited. The four smoke box photographs below illustrate the light distributing property of diffusing glass. How this is applied in the lighting of an actual working area is illustrated by means of the photographs of Mississippi's Experimental Classroom, photographs 5 and 6.

In photographs 1 through 4 the box is built to the scale of 1″ equals 1′ to represent a room 12′ high, 12′ wide and 24′ deep. The "window," centered in one end, is 4′ square, 3′ above the floor.

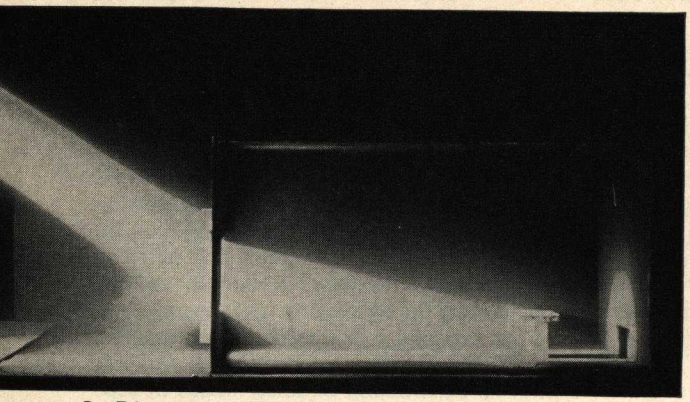
Glare Reduction—Objectionable glare, resulting from the contrast between substantially different brightnesses within the same field of view is converted to controlled, usable, uniform illumination across the working level of the room through the use of the proper translucent glass. For information on the special glare reducing finishes applied to Mississippi Glass patterns, see pages 3, 18 and Pattern Specifications.



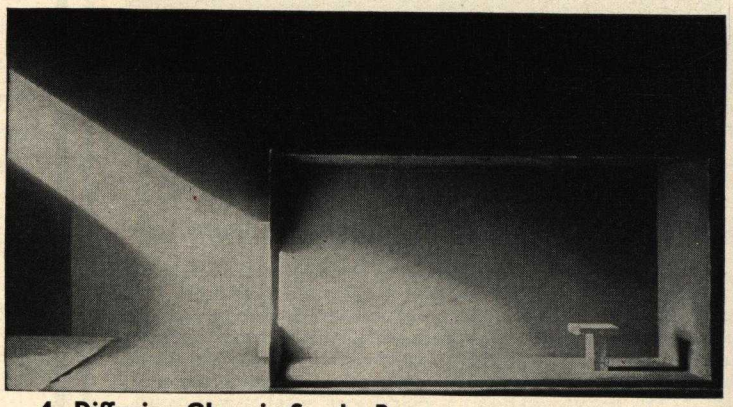
1. No Glass in Smoke Box



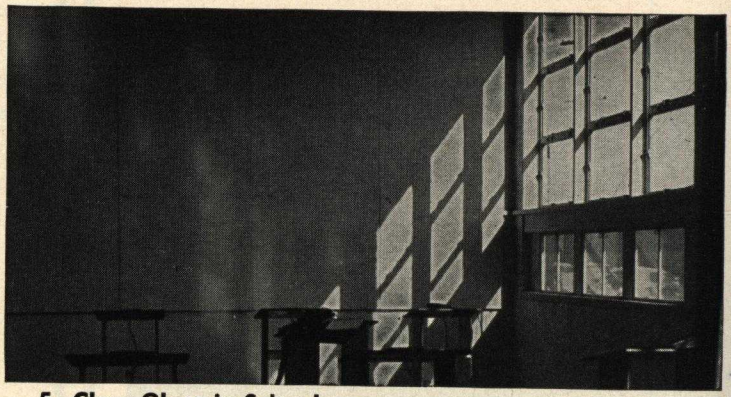
2. Clear Glass in Smoke Box



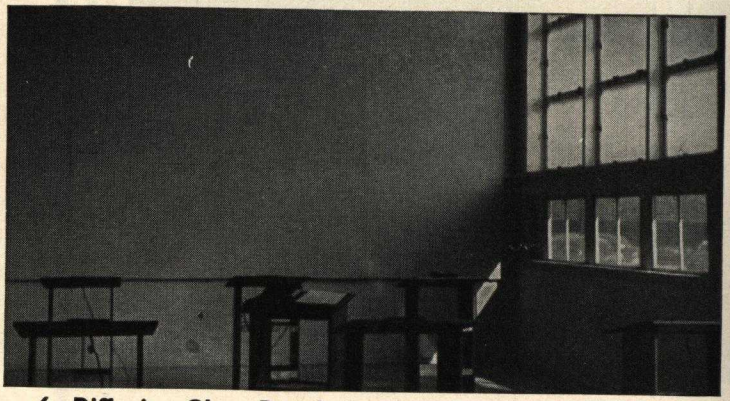
3. Directional Diffusing Glass in Smoke Box



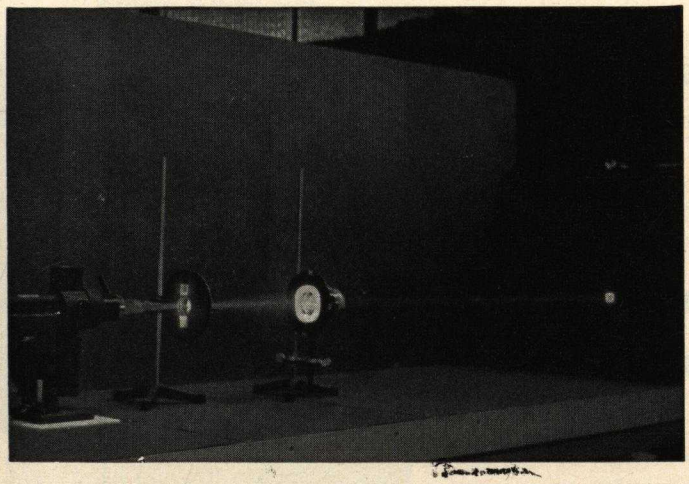
4. Diffusing Glass in Smoke Box

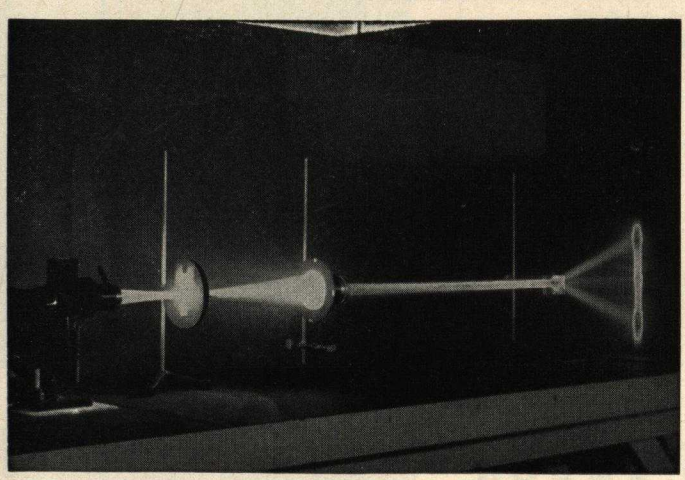


5. Clear Glass in Schoolroom



6. Diffusing Glass Panel above clear vision strip.





The tables on the following pages include the specifications and light distribution charts which will be of assistance in the selection of the proper glass for any specific requirement. The light distribution charts were developed by the apparatus shown at the left. The first photograph shows an inch square of parallel light projected on the screen. The second photograph shows the result of placing a piece of Pentecor glass in the beam of light sixteen inches in front of the screen. The spread of the light diffusion in relation to the one inch square is shown on the light distribution chart of Pentecor on page 9. Light distribution of the other types of rolled glass in relation to the one inch square is similarly shown on the following tables, all being to scale of 3/16 inch to one inch. The optical system of the apparatus employed in light distribution determination is shown below. Due to loss by reflection, the light transmission of uncoated clear glass is never in excess of 92%, not including other losses due to the absorption of light by the composition of the glass. Note obvious reflection loss in photographs 2, 3, and 4, page 6, as compared with photograph 1.

Choices Available

Interesting design characteristics contribute to the versatility of translucent, light diffusing glass by Mississippi. Figuration to meet every need is available and the degree of obscurity is governed both by pattern selection and the application of the special finishes herein described.

Accurate Diffusion Data

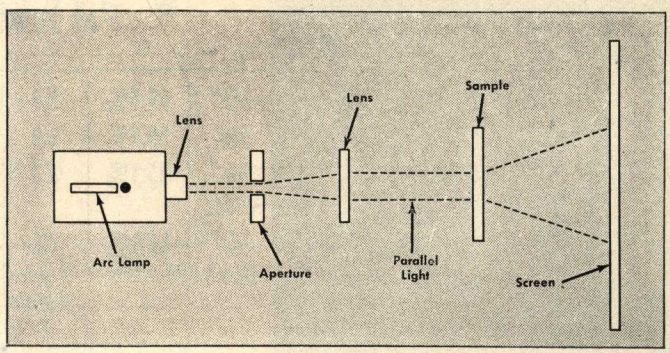
The light distribution charts, plus pattern and specification data, have been found to assist architects, engineers, contractors and others in their choice of the glass best suited to a particular installation.

Light Distribution Properties

Distributing daylight to where needed is the primary purpose of windows. To attain this with the efficiency adequate for adverse sky conditions, light must be thrown directly to working levels. When sky conditions reverse themselves to extreme brightness, the surface finishes and pattern characteristics available in Mississippi Glass effectively minimize objectionable glare.

Light Distribution Determination

In determining light distribution, the beam of light from the projection lamp passes through an aperture, after which the relatively parallel beam of light is 1″ square in cross section. The light then passes through the glass in the sample holder to the screen 16″ distant, scored in 1″ squares. By placing the different glass patterns in the sample holder, the 1″ square light beam is distributed as shown in the light distribution patterns.

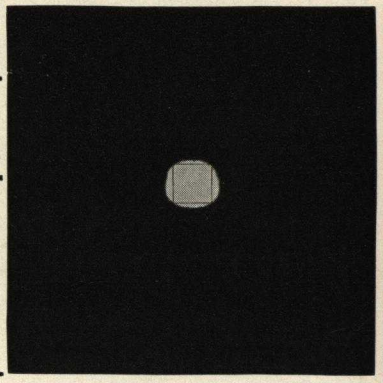


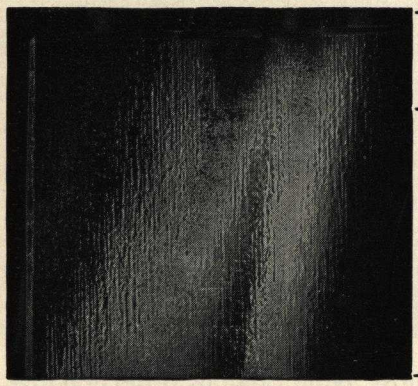
types primarily for diffusion

Pattern Actual Size

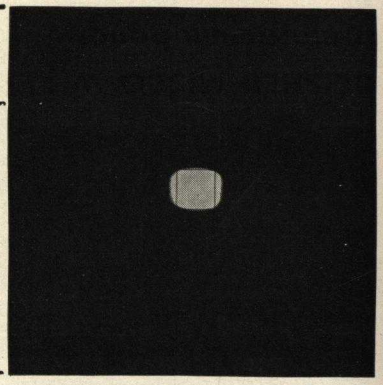
Light Distribution Chart

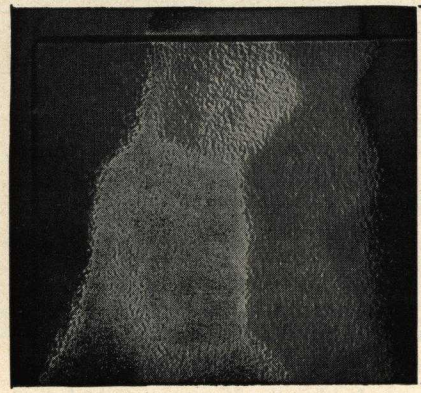
THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
LUXLITE					
1/8"	88.5%	2.0	48 x 132	48 x 132	48 x 132
7/32"	87.3%	2.8	60 x 136	60 x 136	60 x 136



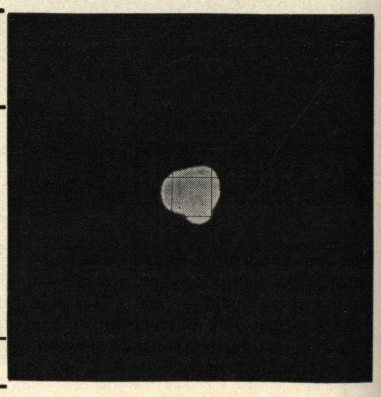


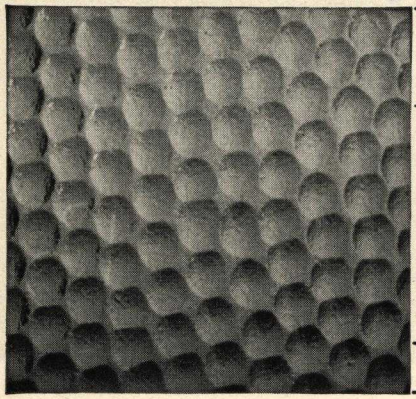
HYLITE					
1/8"	90.5%	2.0	48 x 132	48 x 132	—
7/32"	89.9%	2.8	60 x 136	60 x 136	—
1/4" Wired	89.6%	3.3	60 x 144	60 x 144	—



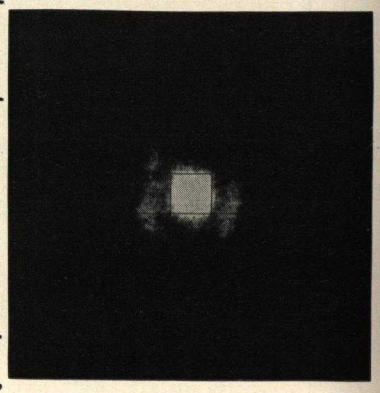


SMOOTH ROUGH®					
1/8"	87.8%	2.0	48 x 132	48 x 132	—
7/32"	86.3%	2.8	60 x 136	60 x 136	—
3/8"	82.5%	5.0	60 x 144	—	—
1/4" Wired	85.6%	3.3	60 x 144	—	—
	(hexagonal mesh on Pacific Coast only)				
1/4" Misco	85.6%	3.3	60 x 144	60 x 144	—



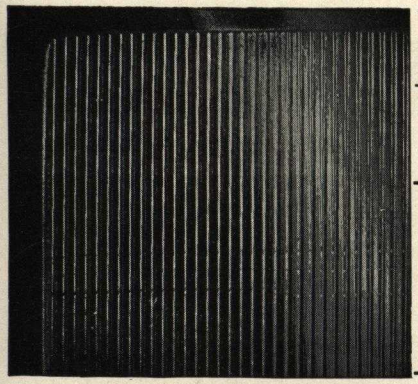


HAMMERED					
1/8"	87.5%	2.0	48 x 132	48 x 132	48 x 132
7/32"	85.9%	2.8	60 x 136	60 x 136	60 x 136
1/4" Wired	85.1%	3.3	60 x 144	60 x 144	60 x 144
1/4" Misco	85.1%	3.3	60 x 144	60 x 144	60 x 144

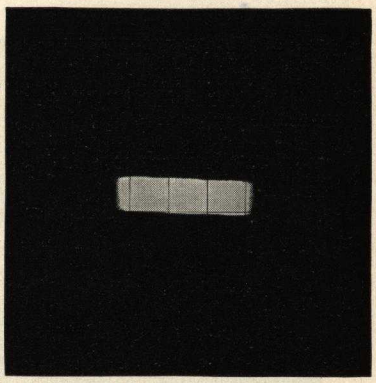


Glare reducing finish not recommended for use in partitions.

Pattern Actual Size

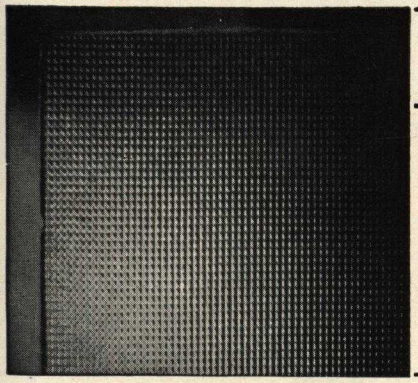


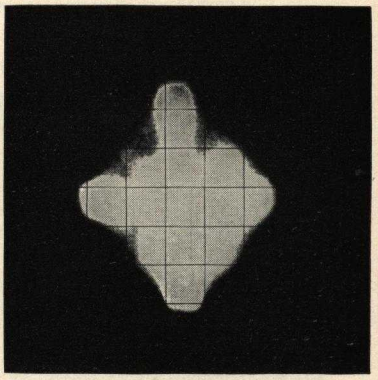
Light Distribution Chart



RIBBED

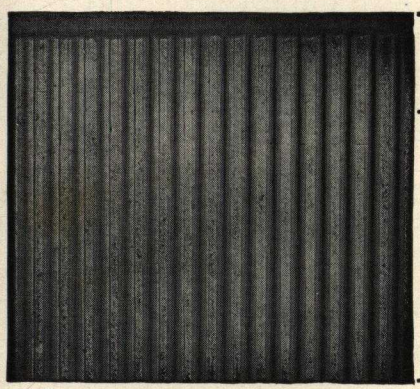
THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
1/8"	88.5%	2.0	48 x 132	48 x 132	—
7/32"	87.3%	2.8	60 x 136	60 x 136	—
1/4" Wired	86.6%	3.3	60 x 144	60 x 144	—

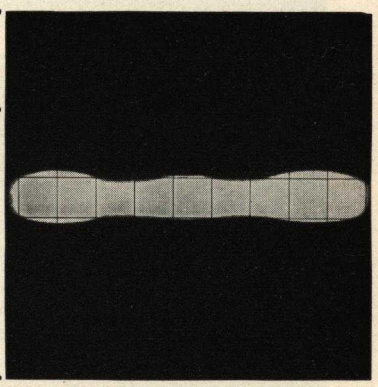




FACTROLITE

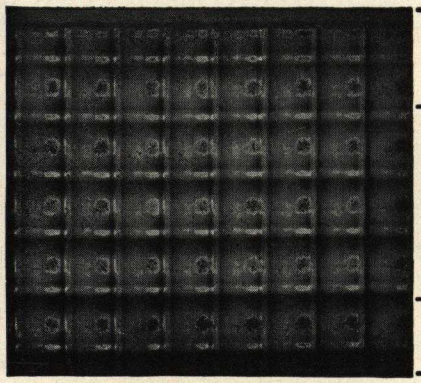
1/8"	87.5%	2.0	48 x 132	48 x 132	48 x 132
7/32"	85.9%	2.8	60 x 136	60 x 136	60 x 136
1/4" Wired	85.1%	3.3	60 x 144	60 x 144	60 x 144

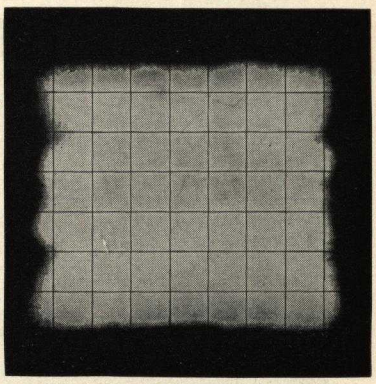




PENTECOR

1/8"	88.5%	2.0	48 x 132	48 x 132	48 x 132
7/32"	87.3%	2.8	60 x 136	60 x 136	60 x 136
1/4" Wired	86.6%	3.3	60 x 144	60 x 144	60 x 144





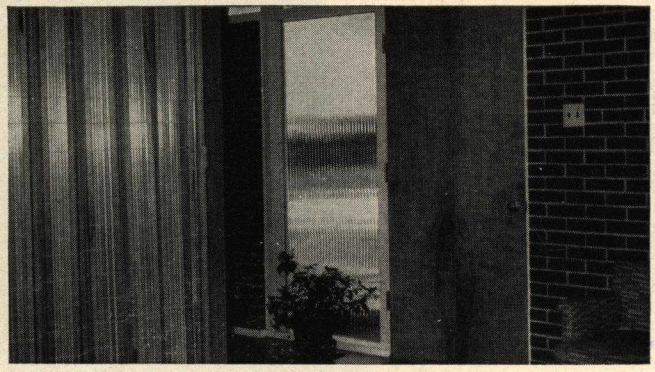
MAGNALITE B

7/32"	81.9%	3.0	60 x 144	—	—
1/4" Misco	80.5%	3.4	60 x 144	—	—

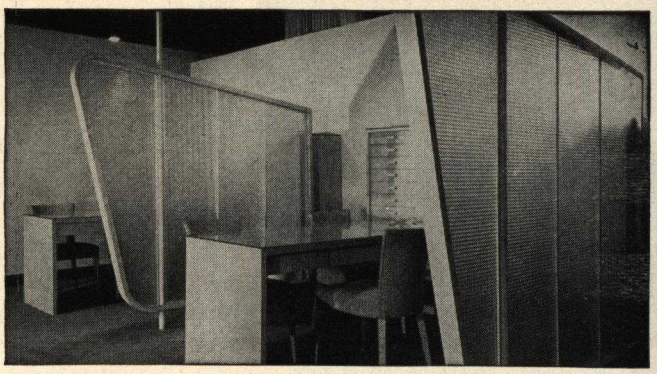
This pattern not glare reduced. Sand blasting is the only surface treatment available.

Glare reducing finish not recommended for use in partitions.

types primarily for decoration

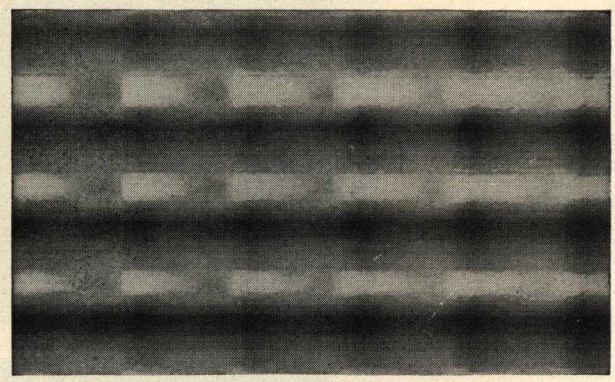


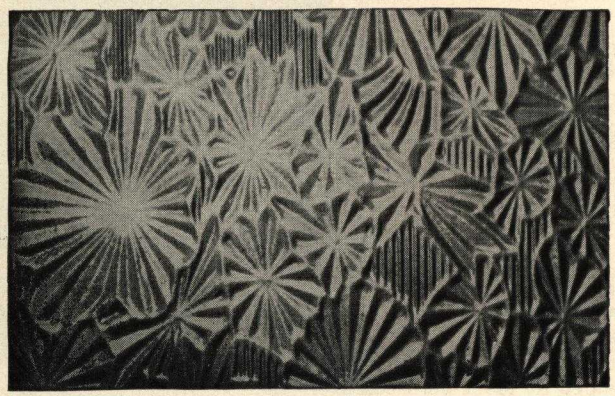
Translucent Mississippi Bandlite makes a graceful entrance . . . offers a dramatic new decorating texture that is distinctively different.



Partitions of Magnalite "A" lend a note of modern beauty, simplicity and smartness to buying booths of Fownes Glove Co., New York.

Pattern Actual Size





THICKNESS	APPROX. LIGHT TRANSMISSION	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZE
MAGNALITE A			
7/32"	81.9%	3.6	60 x 144

Magnalite "A" not glare reduced. Sand blasting is the only surface treatment available.

THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
SYENITE					
1/8"	87.5%	2.0	48 x 132	48 x 132	48 x 132
7/32"	85.9%	2.8	60 x 136	60 x 136	60 x 136
1/4" Wired	85.1%	3.3	60 x 144	60 x 144	60 x 144

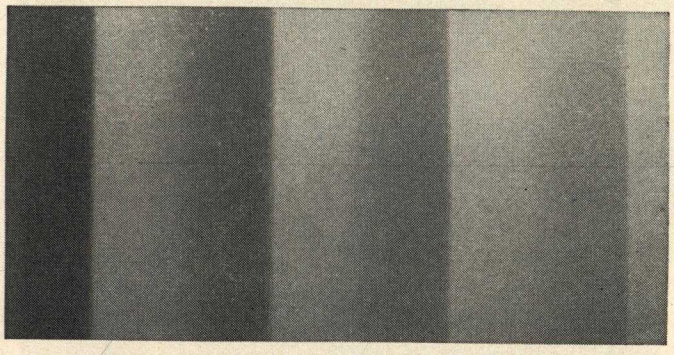
THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
FLORENTINE					
1/8"	88.5%	2.0	48 x 132	48 x 132	—

Glare reducing finish not recommended for partitions.

Pattern Actual Size

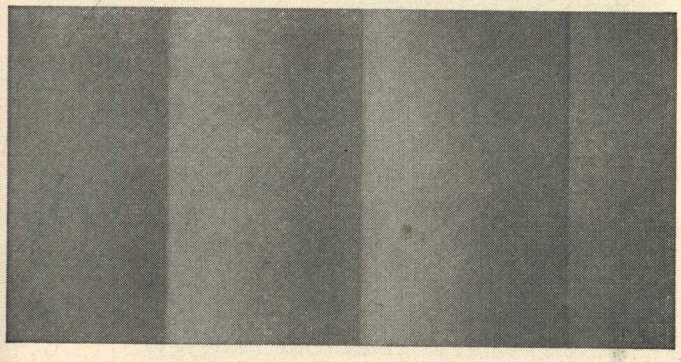
THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
BROADLITE					
7/32"	86.3%	2.8	60 x 136	60 x 136	60 x 136

*G-R on flat side only



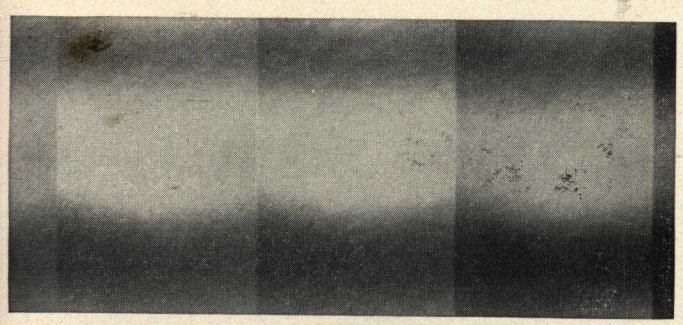
THICKNESS	APPROX. LIGHT TRANSMISSION	MAXIMUM WIDTH	MAXIMUM LENGTH	WEIGHT UNPACKED Lbs.-sq. ft.
BANDLITE				
1/8"	89.0%	54"	132"	2.0
7/32"	89.0%	54"	136"	2.7

The only special finish available on this pattern is Softone—applied to either one or both surfaces.



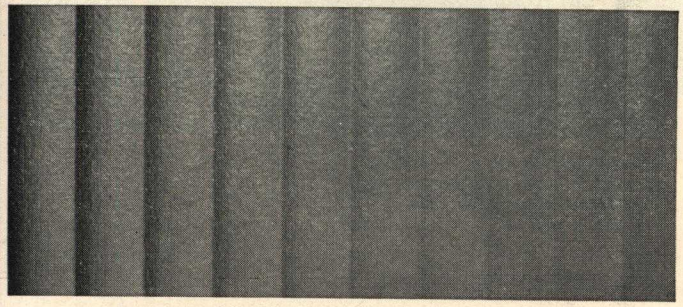
THICKNESS	APPROX. LIGHT TRANSMISSION	MAXIMUM WIDTH	MAXIMUM LENGTH	WEIGHT UNPACKED Lbs.-sq. ft.
BEVELITE				
1/8"	90.4%	54"	132"	2.0
7/32"	90.4%	54"	136"	2.7

The only special finish available on this pattern is Softone—applied to either one or both surfaces.



THICKNESS	APPROX. LIGHT TRANSMISSION	MAXIMUM WIDTH	MAXIMUM LENGTH	WEIGHT UNPACKED Lbs.-sq. ft.
CROSSLITE				
7/32"	870.%	54"	136"	2.7

The only special finish available on this pattern is Softone—applied to either one or both surfaces.



THICK-NESS	APPROX. LIGHT TRANSM'N	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZES UNTREATED	MAXIMUM SIZES G-R 2 SIDES	MAXIMUM SIZES G-R 1 SIDE
PLURALITE					
1/8"	88.0%	1.9	48 x 132	48 x 132	48 x 132
7/32"	86.5%	2.8	60 x 136	60 x 136	60 x 136

Glare reducing finish not recommended for use in partitions.

types primarily for decoration

Structural Corrugated and Structuralite Glass have proven to be items of wide appeal and tremendous usefulness in residential, commercial and industrial applications, both interior and exterior. These modern materials provide the architect with a new media that accents his abilities and creates settings of lasting freshness, beauty and individuality. This is particularly true since the advent of metal moldings which enhance appearance, contribute ease of installation and amplify design possibilities. Of the limitless opportunities for Structural Corrugated Glass, possibly its advantages find fullest expression in partition work. Here, as opposed to walls and enclosures of the conventional types, they borrow light from one room for another... flood areas with soft, mellow illumination. Easily cut to wanted dimensions, simple to install and maintain, the use of Structural glass eliminates mortar joints, plastering, painting and refinishing. Glass never wears out... is easy to clean. And Structural Corrugated Glass partitions can be removed if necessary and used again elsewhere.

Translucent daylighting wall of Structural Corrugated glass adds warmth and atmosphere to this commercial interior.

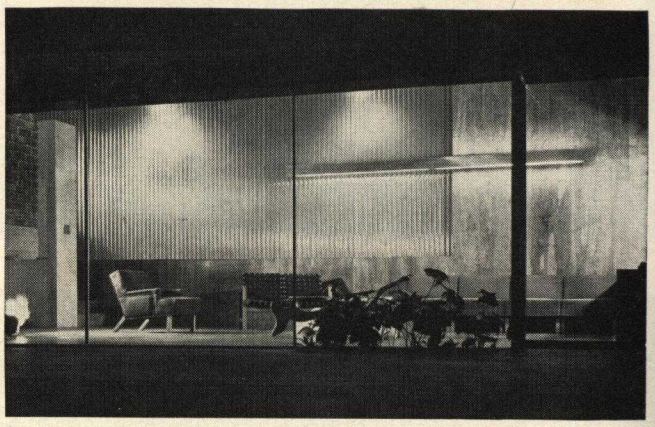
advantages

Brilliance, strength, true cutting surface and excellence of quality combine with moderate cost to make Mississippi Structural Corrugated Glass and Structuralite the choice of thousands of architects, engineers, builders and contractors. Architects are constantly developing new and interesting uses for these two types of glass and the universal application of these patterns is indicative of the many intriguing possibilities in this outstanding new medium of architectural expression.

Simplicity and smartness of this modern office is accented by floor-to-ceiling partitions of Structural Corrugated glass.

when ordering

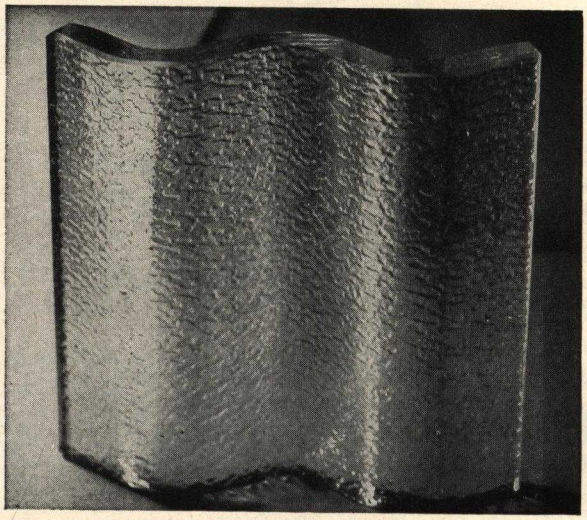
The first dimension (width) is across the corrugations. The second dimension (length) is parallel to the corrugations. The standard widths are 25″ and 50″. Our price to the distributor is based on these standard widths. A light under 25″ wide is billed as though it were 25″ wide and a light between 25″ and 50″ wide is billed as being 50″ wide. "Combination" widths are not furnished as such; for example, a light 30″ wide and one 20″ wide will not be supplied as one 50″ light, but will be charged for as one light 50″ wide and one 25″ wide. Lengths are charged at the actual length furnished (with fractions raised to the next inch).



Contemporary design combined with the luxurious simplicity is achieved through a partition of Structural Corrugated Glass in residence of Kemper Nomland, A. I. A.

STRUCTURAL CORRUGATED GLASS

CROSS SECTION HALF SIZE

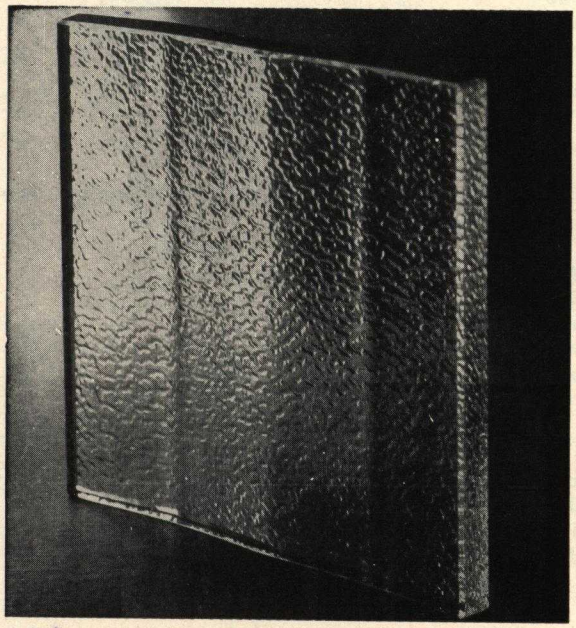


PATTERN HALF SIZE

THICKNESS	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZE
3/8" Overall 1"	6.3	50 x 144

STRUCTURALITE GLASS

CROSS SECTION HALF SIZE



PATTERN HALF SIZE

THICKNESS	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZE
3/8" Overall 1/2"	5.3	50 x 144

surface treatments

With one surface slightly stippled in the manufacturing process to afford obscurity and light diffusion, Structural Corrugated Glass and its companion product, Structuralite transmit soft light that dramatizes any setting in which they are employed.

SAND BLASTING

Either or both surfaces can be furnished sand blasted in sizes up to 50" by 144". The factory's charge for sandblasting is based on actual size furnished without regard to the standard widths.

PAINTING

Structural Corrugated Glass that will be exposed to the sun or that is close to radiators should never be painted. Breakage may occur when this instruction is not heeded.

edgework

CUT EDGES

So called "clean cut" edges cannot be furnished; factory cut edges will usually contain some spalls, projecting points and cutbacks.

GROUND EDGES

All edges can be furnished flat ground, but are subject to some spalls. We cannot furnish seamed or polished edges, but distributors may be able to do such work.

dimensional tolerances

WIDTH TOLERANCE

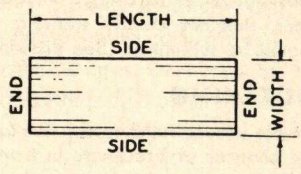
With cut sides, plus or minus 1/8"

With ground sides, plus or minus 1/16"

LENGTH TOLERANCE

With cut ends, plus or minus 3/16"

With ground ends, plus or minus 1/8"



(See drawing at right)

design

Wherever possible sketches showing installation details should be sent to us by distributors. Where a length run of butt-joined edges is involved, we can obtain more accurate results if we know also the size of the opening to be filled. We are anxious to assist in any way possible in solving any problem that may arise in connection with the use of Structural Corrugated and Structuralite Glass.

types primarily for decoration

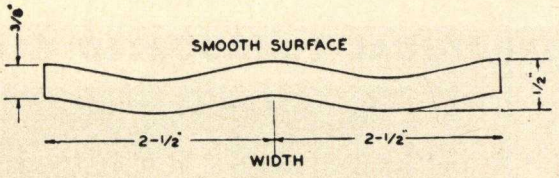
measuring and cutting

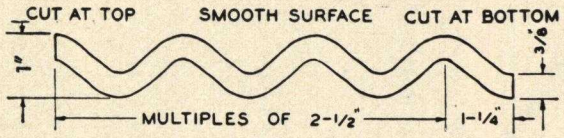
STRUCTURAL CORRUGATED

Measuring and cutting of Structural Corrugated Glass are always done on the smooth surface. Cutting to width (splitting) is ordinarily done at the top of the corrugation, resulting in widths that are multiples of 2½". When necessary, cuts may also be made along the bottom of a corrugation, yielding widths that are multiples of 1¼". However, such cutting results in the two edges lying in different planes. While cutting to width can be done at any other part of the sheet, this invariably results in either a flare or a cutback that must be gound off. An extra charge is made for edge grinding of any light cut on the slope of the corrugation. Slope-cut edges cannot be butt-joined.

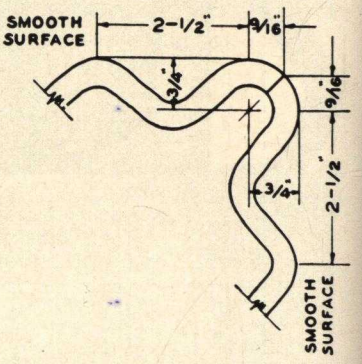
STRUCTURALITE

Structuralite Glass can be cut to any given width subject to our usual tolerances without the necessity of grinding an edge to achieve widths that are not multiples of 2½" or 1¼". Dimensional tolerances are the same as those for Structural Corrugated Glass. The following table along with illustrations at right will be of assistance in problems involving edge work.

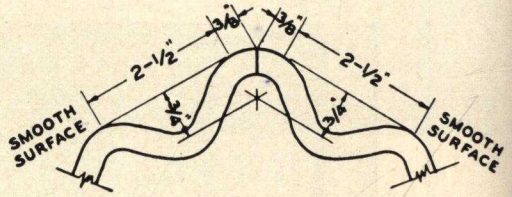




Included Angle	Increase in width Nominal	(Actual)
180°	0"	
170°	1/16"	(.0654)
160°	1/8"	(.1302)
150°	3/16"	(.1941)
140°	1/4"	(.2565)
130°	5/16"	(.3170)
120°	3/8"	(.3750)
110°	7/16"	(.4302)
100°	1/2"	(.4821)
90°	9/16"	(.5303)
80°	9/16"	(.5745)
70°	5/8"	(.6144)
60°	5/8"	(.6495)



INCLUDED ANGLE = 90°



INCLUDED ANGLE = 120°

mitering

STRUCTURAL CORRUGATED

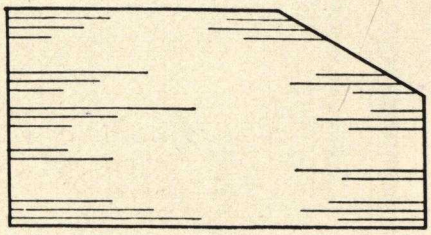
Sides parallel to the corrugation can be furnished mitered ground to any reasonable angle. Mitering cannot be done at the top or bottom of a corrugation. The angle is turned about a point ¾" from the surface of each light. As the included angle decreases, the width of the glass increases as shown in table on this page. (The amount of increase in width is the sine of ½ of the included angle by ¾".) All measurements and cuts made on the smooth surface. If absolutely necessary to have the smooth surface on the included side of the angle, measurements and cuts can be made on the rough surface but the resulting edgework may be inaccurate and inferior.

Note: STRUCTURALITE—The conditions applying to Structuralite are identical with those for Structural Corrugated Glass. Please supply full details.

special operations

PATTERN CUTTING

Lights with shapes other than rectangles are considered pattern lights, which include shapes with circular sides, diagonal sides, etc. Pattern cutting is generally done with a diamond saw or by masking and sandblasting. An extra charge is made for this work. When obtaining quotations, sketches clearly showing the required shapes, with dimensions, should be submitted. (See drawing at right).



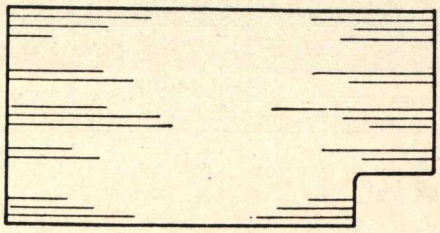
A PATTERN LIGHT

NOTCHING

Simple corner notches can be supplied. These notches greatly increase the chances of breakage in transit and in installation. No responsibility can be assumed for such breakage. Prices for notching will be quoted to distributors upon receipt of sketch and specifications. (See drawing at right).

HOLES

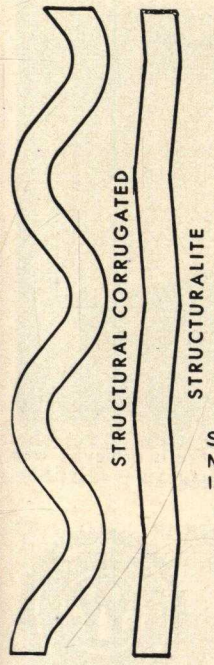
Small holes up to 1" diameter can be drilled by sandblasting or diamond drill. Prices quoted distributors upon request. Holes naturally weaken the glass and no responsibility can be assumed for breakage. Large holes cut out of the interior of the sheet are not practical.



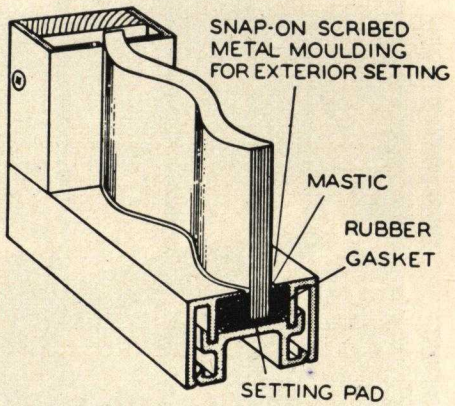
A CORNER NOTCH

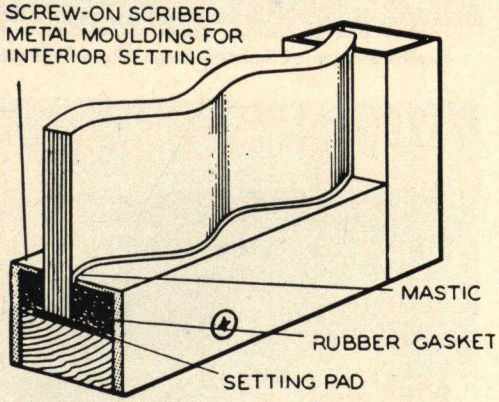
BENDING

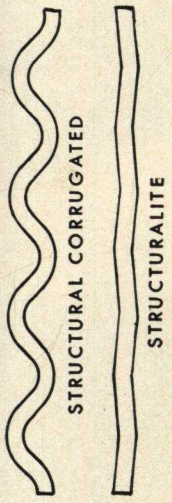
While the manufacturer does no bending, the glass can be bent by companies having suitable bending equipment. Full information should be obtained from concerns performing this type of work.



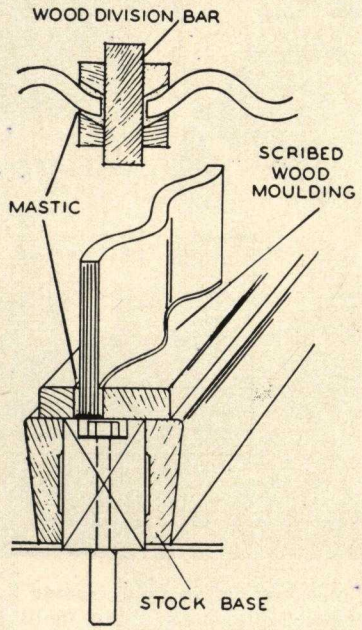
½ SIZE

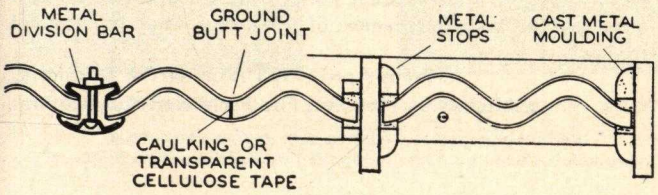






¼ SIZE





installation

GENERAL SETTING PRACTICE

Structural Corrugated Glass should never be glazed directly on hard metal, masonry, or other unyielding base. Where a base of this kind is necessary, wood setting blocks or other cushioning material of adequate size and shape should be used. This glass should never be set directly in concrete, nor wedged tightly into an opening. Allow not less than ⅛″ on each side jamb. The factory does not supply molding trim or fittings.

INTERIOR SETTING PRACTICE

Butt Joints—Where this glass is set edge to edge, the sides of the abutting lights must be accurately ground. For better appearance ground edges are first painted with a clear cellulose acetate lacquer or transparent cellulose tape may be applied. This will serve to remove the white, ground-glass edge when viewing the installation from an oblique angle, and will prevent touching and spalling.

Division Bars—This glass can be set with division bars of metal, wood or plastic which may either be specially designed for the purpose are made up of stock shapes. Unless the division bars provide coverage of at least ½″ from the edge of each light, the edges of the glass should be ground.

Moldings—Head and sill moldings are generally used to hold the glass in place. Unless used in connection with ground edges, moldings should be at least 1″ deep to cover any spalls or chips. Moldings may be of wood or metal and may be made to bend the contour of the glass, or may be straight with the contour filled by scribed wood fillers, gypsum casting plaster, putty or glazing compound. Wood molding should be primed before setting and the material used to fill the contour should be colored to match the finish trim.

Setting Without Molding—This glass is sometimes set with pegs or blocks shaped to fit one or more corrugations. Installations of this type require ground edges. Care must be used to fit the pegs to insure a firm setting. It is often necessary to adjust the opening to fit the glass by the use of fillets or furring.

EXTERIOR SETTING PRACTICE

Butt Joints—All butt joints, including mitered joints in exterior installations should be made waterproof by using a filler much as show case cement.

Division Bars—Weatherproof tape should be used between the division bars and the glass, both inside and outside.

Moldings—The glass should be bedded in glazing or caulking compound, colored to match the molding and head, sill and side jambs. Plaster filling should not be used for exterior installations.

types primarily for protection

Constant fire protection at minimum cost, together with maximum daylight illumination characterizes Mississippi Wire Glass... the original solid wire glass upon which the standard was based in 1899... the standard today by which all others are judged.

uses

The ability of Mississippi Wire Glass to remain in an opening even after cracking or accidental breakage makes it most suitable for skylights, overhead glazing or any situation in which flying glass would be dangerous. The stubbornness with which Mississippi Wire Glass withstands abuse and remains in the sash also makes it admirably suitable for protection against burglars.

advantages

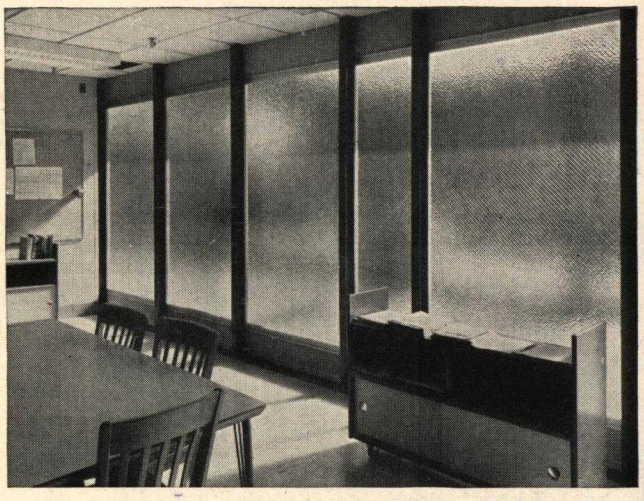
FIRE PROTECTION PLUS APPEARANCE

The advent of diamond shaped, welded Misco netting in wire glass has removed the objection held by many to the "chicken wire" effect of the netting used in wire glass for so many years. Polished Misco is the highest achievement of the rolled glass manufacturer's art, combining the utmost in protection with modern beauty. The development of Polished Misco is the result of many requests from the architectural and engineering professions for a fire retardant glass as efficient as hexagonal wire glass, but more attractive in appearance. Blending harmoniously with modern buildings, it enhances any installation with its highly interesting design, while affording approved fire and breakage protection.

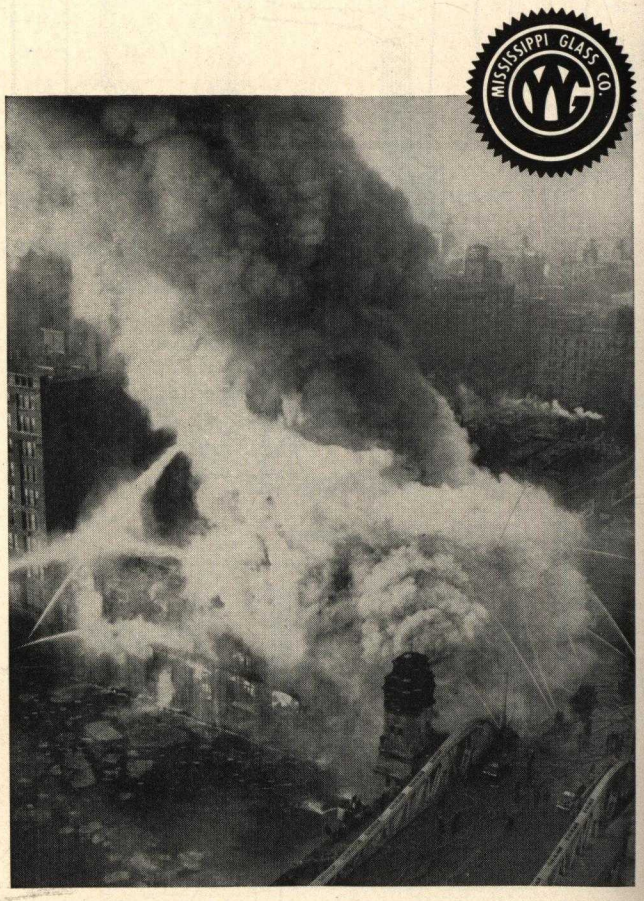
APPROVED FIRE RETARDANT

Over the years wired glass has proved itself as a fire retardant to such an extent that Underwriters' Laboratories no longer consider it necessary to test it.

A measure of permanent fire protection afforded by Mississippi Wire Glass is the test this product had to withstand in order to obtain approval as Fire Retardant No. 32 given by Underwriters' Laboratories, an approval this product enjoyed for 60 years. This test can be described briefly as the glazing of several wire glass windows in a removable wall of a gas-fired furnace. The temperature of the glass is raised to approximately 1600 deg. F. in 45 minutes and held at this point for an additional 15 minutes. At the end of this time the furnace wall in which the wired glass is glazed is moved aside, the glass then being subjected to the 1⅛" stream from a fire hose applied at 35 to 40 pounds of pressure. Passing this test consists of the glass remaining in the sash and remaining substantially unchanged except for the cracking due to thermal shock.



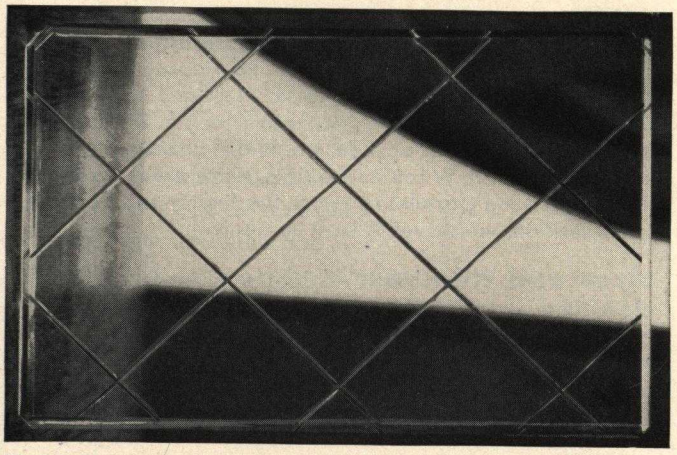
Privacy plus protection against breakage or fire is achieved with this installation of Smooth Rough Misco wire glass.



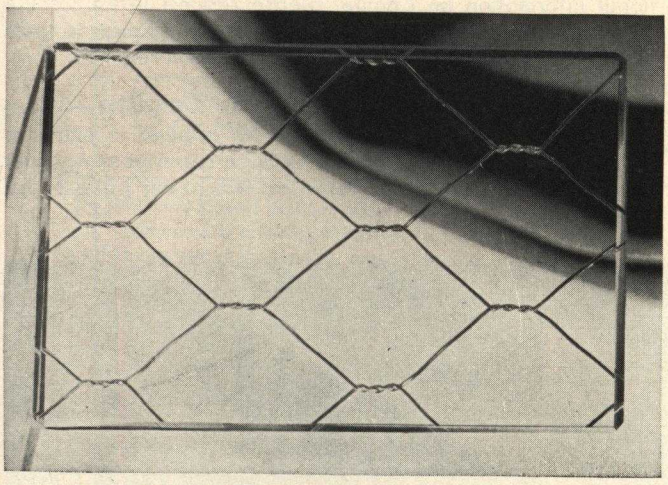
"As in most serious fires, exposed buildings were threatened by the raging fire in their midst. That these buildings were not involved is a tribute to the efficient work of the Chicago Fire Department and to the effectiveness of wire glass windows in metal frames."

From April, 1951 issue NFPA Quarterly, published by National Fire Protection Association.

polished wired glass

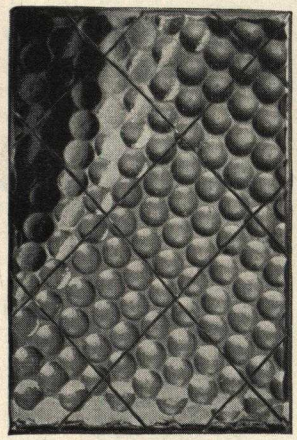


MISCO—actual size



HEXAGONAL NETTING—actual size

translucent wired glass



HAMMERED MISCO

SMOOTH ROUGH MISCO

Hammered pattern also available in hexagonal mesh.
Smooth Rough available in hexagonal mesh on Pacific Coast only.

specifications

polished misco wired glass

THICKNESS	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZE
1/4"	3.4	60 x 132

specifications

hexagonal netting polished wired glass

THICKNESS	WEIGHT UNPACKED Lbs.-sq. ft.	MAXIMUM SIZE
1/4"	3.4	60 x 132

underwriters requirements

Standard wired glass, 1/4" in thickness, is to be used in labeled fire window frames and in such labeled fire doors and fire door frames as are recognized. Fire Underwriters list classifications of Wire Glass sizes permissible for: (1) Openings in corridors and room partitions, (2) Openings in exterior walls, (3) Openings to exterior fire escapes, and (4) Openings in vertical shafts.

how to specify

Mississippi Wire Glass shall be installed in (specify location) and in all places marked "W.G." on plans and elevations. The wire glass is to have a thickness of at least 1/4" at thinnest point. Wire mesh not to be larger than 7/8" and no wire used for such mesh to be smaller than No. 24 B&S gauge. Specify standard woven wire or welded Misco wire mesh. State name of glass pattern and location in which it is to be installed. In wire glass the first dimension, or width, is across the sheet; the second dimension, or length, is, except in Coolite (see page 18), always parallel to the twists in hexagonal netting.

heat absorbing glass

Of a cool, blue color with a slightly greenish cast, Coolite is composed of special ingredients that give it the highly important and desirable properties of heat absorption and the ability to soften light. Coolite reduces solar heat radiation. In simplest terms, the interception of solar heat by Coolite is the result of several factors. Tests on ¼″ Polished Coolite prove that approximately 80% of the solar heat is intercepted by being reflected and absorbed, and that only 20% passes through the glass without interference. The energy that is absorbed raises the temperature of the glass which then theoretically re-radiates heat equally from both the inner and outer surfaces. Actually, however, more than half of this heat is dissipated outside the building because of greater air circulation.

Features — Improved production, reduction in cost of manufacturing as well as money saved due to the lessened load on air conditioning and humidification equipment frequently result from the use of Coolite.

LUXLITE COOLITE — The refreshing and practical Luxlite pattern on Coolite Heat Absorbing and Glare Reducing Glass, now regarded as standard, is appropriate for use in practically every type of installation and its nearly smooth yet rough texture while assuring adequate obscurity in no way detracts from its easy to clean quality. For photograph of pattern see page 8.

HAMMERED COOLITE—The traditional hammered pattern invariably associated with heat absorbing glass is also available until further notice. For photograph of pattern see page 8.

WIRE — For heat absorption with protection Coolite is available with wire in both Luxlite and Hammered patterns. Coolite wire glass is furnished in ¼″ thickness in Hexagonal Mesh. Maximum width, 34″, maximum length, 144″. Weight unpacked 3.4, weight packed 4.0. In the absence of specific instructions Coolite Wire Glass will be shipped with the twist of the wire running parallel to either the first or second dimension specified, whichever is most convenient.

Sizes and thickness — Coolite is made in ⅛″, ¼″ plain, and ¼″ wired. Maximum width of ⅛″ Coolite, 34″. Maximum length, 132″. ¼″ Coolite (plain or wired), maximum width, 34″, maximum length, 144″.

Please see installation recommendations on Coolite Wire glass in latest Coolite Catalog.

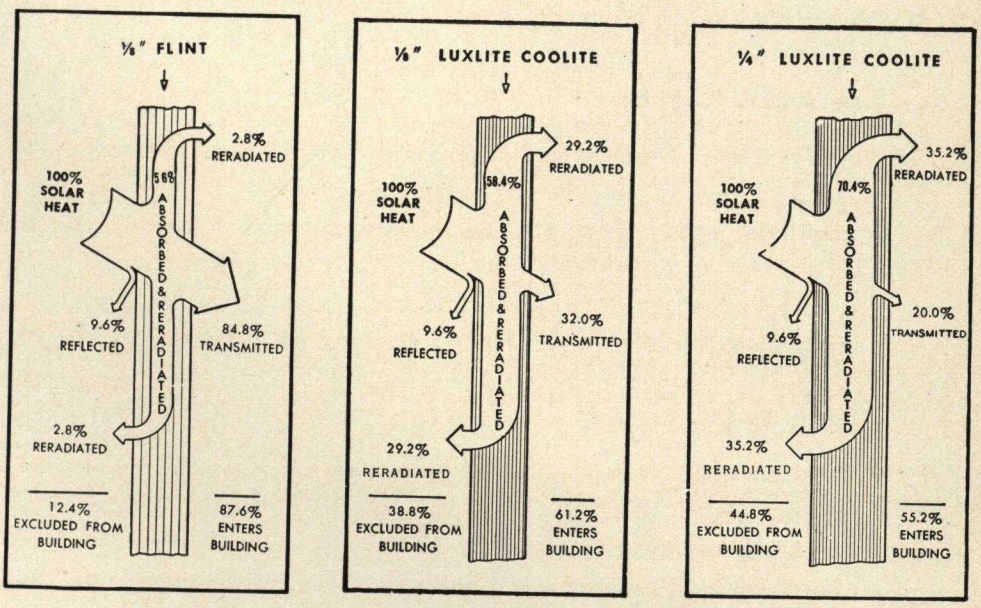
COOLITE — Samples and Catalog — For additional information on Coolite, please request latest Coolite catalog. Samples of Coolite and Coolite Glare Reduced (with or without wire) will be gladly furnished upon request.

GLARE REDUCING FINISH for Coolite—When specified, glare reducing finish can be applied to either or both surfaces of Coolite glass. This finish is permanent, is not affected by time and weather and will never have to be renewed.

Coolite glass in John J. Kane, Allegheny County Institution District (Hospital for the Indigent Sick).
Associate Architects: Button & McLean — Mitchell & Ritchey, Pittsburgh, Pa.

Performance

Tests were made with two identical enclosures exposed to direct solar radiation, one covered with ¼" Hammered Coolite, the other covered with ordinary ¼" Hammered glass. It was found that the average air temperature inside the enclosure covered with ordinary hammered glass had increased 22°F., whereas the air temperature inside the enclosure covered with hammered Coolite had increased only 11°F.



COOLITE Transmission (Approximate Coolite Transmissions in % Total Light)

G-R DENOTES GLARE REDUCING	VISIBLE LIGHT		TOTAL SOLAR ENERGY		SPECIFICATIONS	
	Smooth Side Toward Light Source	Figured Side Toward Light Source	Smooth Side Toward Light Source	Figured Side Toward Light Source	Weight Unpacked Lbs. Per. Sq. Ft.	Maximum Sizes
†⅛" Polished 2 Sides Test Sample	62		32			
⅛" Hammered or Luxlite (Unetched)	60	60	28	28	2.0	34 x 132
⅛" Hammered or Luxlite G-R Smooth Side Only	58	47	27	22	2.0	34 x 132
⅛" Hammered or Luxlite G-R Figured Side Only	47	58	22	27	2.0	34 x 132
⅛" Hammered or Luxlite G-R Both Sides	45	45	22	22	2.0	34 x 132
†¼" Polished 2 Sides Test Sample	51		20			
¼" Hammered or Luxlite (Unetched)	50	50	20	20	3.3	34 x 144
*¼" Hammered Hexagonal Mesh Wire					3.3	34 x 144
*¼" Luxlite Hexagonal					3.3	34 x 144
¼" Hammered or Luxlite G-R Smooth Side Only	49	40	20	15	3.3	34 x 144
¼" Hammered or Luxlite G-R Figured Side Only	40	49	15	20	3.3	34 x 144
¼" Hammered or Luxlite G-R Both Sides	36	36	14	14	3.3	34 x 144

†Figures for Coolite Polished 2 sides are given only because Federal Specification DD-G-451a requires transmission figures on polished sample. Coolite is not sold polished.

*Transmission values for ¼" wired glass can be taken as 1-2% lower than corresponding values for ¼" unwired.

Note: If it is desired to compare the performance of Coolite with that of ordinary clear glass, the reference to loss by reflection on page 5 is pertinent and should be considered.

COOLITE and Air Conditioning

Extensive investigations dealing with the reduction of instantaneous heat gain by means of heat absorbing glasses as applied to the cooling load or the required capacity of air conditioning equipment have been conducted and reported by the American Society of Heating and Air Conditioning Engineers. (Heating, Ventilating and Air Conditioning Guide—Cooling Load Chapter.) The use of Coolite in a building to be air conditioned will reduce the cooling load due to the fenestration to approximately one half that of a corresponding installation made with regular non-heat absorbing glass, thereby reducing the neaessary air conditioning capacity accordingly. This in turn will result in either an actual saving or an additional margin of capacity for the equipment, as the architect may choose.

Installation Recommendations

Plain Coolite is not recommended for installation where glare reducing qualities are required. In such cases Coolite with special glare reducing finish should be used. Where glare is a source of annoyance and of severe nature, windows should be glazed with ¼" Glare Reducing Coolite Glass. Where light intensity is not extreme and glare is moderate, ⅛" Glare Reducing Glass can be satisfactorily installed. For installation recommendations on Coolite Wire Glass please see latest Coolite Catalog.

Selection Factors

Fundamentally, heat absorbing glass is made to reduce the transmission of solar radiation which differs from that of an artificial source such as a heat lamp or projection lamp which emits a very high percentage of infra-red radiation not possible to obtain from sunlight. Therefore, in all quick tests or demonstrations of heat absorbing glass, the procedure specified by the National Bureau of Standards should be employed in order to make a reasonably true comparison. For example, glass may be made to transmit very little infra-red radiation of the wave lengths emitted by an ordinary electric lamp, but the amount of solar heat transmitted by this glass could be relatively high. Therefore, different types of glass cannot be placed in front of an electric light in order to determine accurately and scientifically which is best for reducing solar heat transmission. Consequently, the testing or demonstrating apparatus in which an electric light is used as a heat source must be equipped with the proper filter to make the artificial heat source reasonably comparable to sunlight.

MISSISSIPPI GLASS

ordering

Glass should always be ordered sufficiently in advance of actual need so as to allow ample shipping and installation time. When specifying sizes it should be remembered that the first dimension is understood to be the width, which is across the pattern as rolled. The second dimension is understood to be the length which is the direction in which the figured or fluted pattern runs.

assistance

The services of Mississippi Glass Company representatives and its network of distributors are available to architects. Special problems are frequently referred to our Research Department for attention. Literature is available on all types of Mississippi Glass for use in residential, commercial and industrial installations. Free samples on request.

distribution

Mississippi Glass is available from most leading distributors of quality glass in all principal cities of the United States and in Canada from Canadian Pittsburgh Industries Limited, Hobbs Glass Division.

MISSISSIPPI GLASS COMPANY

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